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133007-25-7P, L-Galactulose 1-phosphate

135395-64-1P

136616-69-8P, 6-Azido-L-fucose 1-phosphate

144447-52-9P, 6-Methoxy-L-fucose 1-phosphate

189701-07-3P

189701-08-4P

189701-09-5P

189887-20-5P, L-lyxo-Hexos-2-ulose

Role: BPN (Biosynthetic preparation); BPR (Biological process); PUR (Purification or recovery); RCT (Reactant); BIOL (Biological study); PREP (Preparation); PROC (Process); RACT (Reactant or reagent)
(enzymic synthesis of L-fucose and L-fucose analogs)

5144-78-5P

Role: BPR (Biological process); PUR (Purification or recovery); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); PROC (Process); RACT (Reactant or reagent)
(enzymic synthesis of L-fucose and L-fucose analogs)

56-82-6

57-04-5, Dihydroxyacetone phosphate

141-46-8, Glycolaldehyde

598-35-6, Lactaldehyde

35830-93-4

37428-67-4

114642-94-3

Role: BPR (Biological process); RCT (Reactant); BIOL (Biological study); PROC (Process); RACT (Reactant or reagent)
(enzymic synthesis of L-fucose and L-fucose analogs)

9001-77-8, Acid phosphatase

9024-52-6, Aldolase

60063-83-4, L-Fucose isomerase

Role: CAT (Catalyst use); USES (Uses)

(enzymic synthesis of L-fucose and L-fucose analogs)

153230-39-8P

153230-41-2P

Role: PRP (Properties); PUR (Purification or recovery); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(enzymic synthesis of L-fucose and L-fucose analogs)

Supplementary Terms

fucose synthesis enzyme

A process for manufacturing L-fucose from Chordariaceae or Spermatochnaceae. Takemura, Motohiro; Iijima, Boseki; Tatenno, Yoshiaki; Kataura, Koichi; Kato, Kazuaki; Yamazaki, Fumito. (Towa Chemical Industry Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho (1988), 5 pp. CODEN: JKXXAF JP 63027496 A2 19880205 Showa Patent written in Japanese. Application: JP 86-169054 19860719. CAN 109:98833 AN 1988:498833 CAPLUS (Copyright 2002 ACS)

Patent Family Information

Patent No.	Kind	Date	Application No.	Date
JP 63027496	A2	19880205	JP 1986-169054	19860719
JP 07045510	B4	19950517		

Abstract

L-Fucose (I) was manufd. from Chordariaceae or Spermatochnaceae. Cladosiphon okamuranus (500 G; 55.5 g solid content), 1 L H₂O, and 20 g concd. H₂SO₄ were heated 6 h at 100° with stirring. The hydrolyzate was cooled and the alga was removed by filtration. The filtrate was adjusted to pH 5 with Ca(OH)₂, treated with charcoal, and filtered. To the filtrate 5 g yeast was added and the mixt. was stirred for 4 days at 35°. After treating again with charcoal, the mixt. was filtered and the filtrate was deionized with cation and anion exchange resins and concd. to provide 8.4 g sugar soln. which was mixed with 200 mL EtOH and allowed to crystallize 4 days at room temp. to give 4.2 g (7.5%) I with 98.7% purity

Patent Classifications

Main IPC: C07H001-08. Secondary IPC: C07H003-08; C12P019-02.

Indexing -- Section 63-5 (Pharmaceuticals)

Section cross-reference(s): 5, 11, 33

Chordariaceae

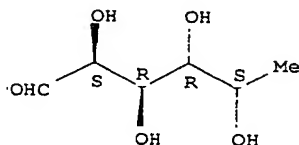
Cladosiphon okamuranus

Spermatochnaceae

(L-fucose manuf. from)

2438-80-4P, L-Fucose

Absolute stereochemistry.



Role: PREP (Preparation)

(manuf. of, from Chordariaceae and Spermatochnaceae)

Supplementary Terms

fucose manuf Chordariaceae Spermatochnaceae

Conditioning silica surfaces with metal silicates for increasing electro-osmotic flow rate. Demorest, David M.; Moring, Stephen E.; Chiesa, Claudia. (Perkin-Elmer Corporation, USA). U.S. (1996), 24 pp. CODEN: USXXAM US 5578179 A 19961126 Patent written in English. Application: US 95-501674 19950712. CAN 126:20640 AN 1996:722541 CAPLUS (Copyright 2002 ACS)

Patent Family Information

Patent No.	Kind	Date	Application No.	Date
US 5578179	A	19961126	US 1995-501674	19950712
CA 2226464	AA	19970130	CA 1996-2226464	19960710
WO 9703351	A1	19970130	WO 1996-US11400	19960710

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